



California Regional Water Quality Control Board

Los Angeles Region

Winston H. Hickox
Secretary for
Environmental
Protection

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640
Internet Address: <http://www.swrcb.ca.gov/~rwqcb4>



Gray Davis
Governor

April 7, 1999

Mr. James A. Adams
Catellus Development Corp.
201 Mission Street, 2nd Floor
San Francisco, CA 94105

*Multi-Tenant
DOE# parcel
(679)
(17004)
1744*

**CHRYSLER NU-CAR PREP FACILITY - MULTITENANT PROPERTY - 12000 EAST
SLAUSON AVENUE, SANTA FE SPRINGS (SLIC NO. 197C)**

Dear Mr. Adams:

We have reviewed the following site assessment reports submitted for the above-mentioned site:

- Dames & Moore Preliminary Site Assessment Report, dated 9/4/91.
- Dames & Moore Final Report, Phase II Environmental Assessment Report, dated 12/26/91.
- Dames & Moore Supplemental Phase II Environmental Assessment and Soil Removal Report, dated 4/9/92.
- Dames & Moore Environmental Site Assessment Update Report, dated 10/2/96.
- Dames & Moore Phase I ESA, dated 10/1/98.

The Multitenant Property (Site) is approximately 9.37 acres, which was a part of the 40-acre Chrysler Nu-car Preparation facility. The Site was a bulk fuel storage facility, with approximately 10 above-ground tanks, from 1928 to the early 1960s. General Motors Corporation's and Chrysler Corporation's new car parking area occupied a large portion of the Site. There were also an administration building and the north end of a carwash located on the east side of the Site. The Chrysler Neu-Car Preparation facility was demolished in 1988, and the Site was developed into an office park consisting of five single-story warehouse-type buildings.

With the exception of the north end of a carwash, the Site did not contain any other areas of environmental concern such as underground tanks, clarifiers, service pits or areas, and sumps.

During site development activities in August 1990, stained soil was encountered between Buildings 13 and 15. The petroleum hydrocarbon (TPH) impacted soil was subsequently removed during construction of the sewer line. Confirmation samples collected indicated non-detectable results for benzene, toluene, ethylbenzene, and xylene (BTEX), and less than 100 mg/kg of TPH.

In March 1991, Converse Consultants installed four groundwater monitoring wells on the Site to assess the extent of groundwater contamination detected on the Central Property. One soil sample collected from MW-10 at 15 feet below ground surface (BGS), contained TPH,

Mr. Adams
Multitenant Property

- 2 -

4/7/99

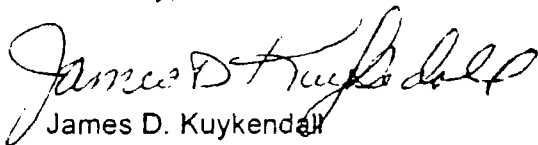
ethylbenzene, and xylene, at 1,200 mg/kg, 1,100 µg/kg, and 1,800 µg/kg, respectively. Additional subsurface investigations were conducted to define the extent of soil contamination at the Site. Soil sampling data indicated that the TPH detected consisted of primarily long chained hydrocarbons.

Subsequently, a soil removal program was implemented in April 1992 to remove approximately 700 tons of TPH impacted soil. TPH impacted soil was removed to within two feet of the north property, due to the proximity to public utilities and the Slauson Avenue roadway. With the exception of the northern wall, confirmation soil samples collected from the excavation indicated nondetectable results for TPH and BTEX. Confirmation soil sample collected from the northern wall of the excavation indicated 4,537 mg/kg of TPH, 26 µg/kg of benzene, and 52 µg/kg of toluene. Soil samples, collected on Slauson Avenue at approximately 17 feet north of the property boundary, indicated non-detectable results for TPH and BTEX. The data seem to indicate that the extent of TPH impacted soil remaining, is limited in size and is located under the Slauson Avenue roadway. Therefore, we concur with your consultant's conclusion that it may not be economically feasible to excavate in the proximity of public utilities and may compromise the integrity of the Slauson Avenue roadway.

According to the October 1998, Phase I Environmental Site Assessment Report, the Site is currently occupied by office and commercial tenants. The warehouse spaces are used mostly for product storage and distribution, and personal storage. There is no evidence of manufacturing involving the use or storage of hazardous materials observed onsite.

Based upon the information submitted, we require no further action at this Site. If you have any questions, please contact Ms. Jenny M. Au at (213) 576-6734.

Sincerely,



James D. Kuykendall
Assistant Executive Officer

Cc: Ms. Debbie Stott, Dames & Moore

197C

Mr. Adams

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1/14/99

ACKNOWLEDGMENT OF RECEIPT OF
CLEANUP AND ABATEMENT COST RECOVERY LETTER

I, James A. Adams, acting within the authority vested in me as an authorized representative of Catellus Development Corp., a corporation, acknowledge that I have received and have read a copy of the REIMBURSEMENT PROCESS FOR REGULATORY OVERSIGHT and the cover letter dated January 14, 1999, concerning cost reimbursement for Regional Board staff costs involved with oversight of cleanup and abatement efforts.

I understand the reimbursement process and billing procedures as explained in the letter. Our company is willing to participate in the cost recovery program and pay all subsequent billings in accordance with the terms in your letter and its attachments. I also understand that signing this form does not constitute any admission of liability, but rather only an intent to pay for costs associated with oversight. Billings for payment of oversight costs should be mailed to the following individual and address:

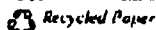
BILLING CONTACT: James A. Adams
BILLING ADDRESS: Catellus Development Corporation
201 Mission Street, 2nd Floor
San Francisco, CA 94105
TELEPHONE NO.: 415 974-4507


signature

Director, Environmental Services
Title

Date: 1/15/99

California Environmental Protection Agency





Winston H. Hickox
Secretary for
Environmental
Protection

California Regional Water Quality Control Board

Los Angeles Region

Internet Address: <http://www.swrcb.ca.gov/~rwqcb4>
101 Centre Plaza Drive, Monterey Park, California 91754-2156
Phone (323) 266-1500 • FAX (323) 266-7600



Gray Davis
Governor

January 14, 1999

Mr. James A. Adams
Catalina Development Corp.
201 Mission Street, 2nd Floor
San Francisco, CA 94105

Post-It Fax Note	7671	Date	1/15/99	# of pages	7
To	James Adams	From	Rebecca Chon		
Co./Dept.		Co.	RWQCB - LA		
Phone #		Phone #	323-266-7600		
Fax #	(415) 774-4651	Fax #			

SPILLS, LEAKS, INVESTIGATIONS AND CLEANUPS (SLIC) OVERSIGHT COST REIMBURSEMENT ACCOUNT - CHRYSLER NU-CAR PREP FACILITY - EAST SLAUSON AVENUE/BURKE STREET, SANTA FE SPRINGS (SLIC NO. 197)

Dear Mr. Adams:

The California Water Code (CWC), Section 13304, allows the Regional Board to recover reasonable expenses from the responsible party to oversee cleanup of unregulated releases which adversely affect the State's waters.

Historical operations at the site include bulk storage and automotive maintenance and preparation. Areas of concern at the sites include former locations of aboveground storage tanks (ASTs) used for bulk storage, carwash, clarifiers, service pits, paint booth, underground storage tanks (USTs), and hydraulic hoists and lifts. Past operations at the site have impacted the soil and groundwater with petroleum hydrocarbons and volatile organic compounds. Up to 13,000 mg/kg of TPH and 3800 µg/kg of PCE have been detected in the soil and 1,600 µg/L of PCE has been detected in the groundwater.

The beneficial uses of the groundwater are designated as municipal and domestic supply based on the Water Quality Control Plan (Basin Plan) for Los Angeles County. The release of chemicals has degraded the groundwater quality and the beneficial uses of the State's Waters.

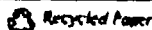
Estimate of Work to be Performed

Board staff estimate the following work will be done for your site during the Regional Water Board's 1998/1999 fiscal year (July 1, 1998 to June 30, 1999):

1. Review previous site assessment reports submitted on December 14, 1998.
2. Conduct site inspections, meetings, and telephone communications with consultants, neighboring sites and other public agencies
3. Conduct internal communications (i.e. meetings, memos) about the site.

Statement of Expected Outcome

California Environmental Protection Agency



Mr. Adams

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1/14/99

The following is the expected outcome of work that will be performed during fiscal year 1998/1999:

1. Provide written comments on the submitted reports.
2. Verify adequacy of reports.
3. Determine if additional site assessment is required.

Billing Rates:

Enclosed is the billing rates for employees expected to perform the work. The names and classifications of employees that charge time to this site will be listed on the invoices. The average billing rate is about \$70.00 per hour.

Estimation of Expected Charges

Board staff expects to charge about 150 hours of work related to this site during fiscal year 1998/1999. Based on the average billing rate of \$70 per hour, the estimated billing charge for this site during this fiscal year is about \$10,500.

If you have any questions, please contact Ms. Jenny M. Au at (323)266-7576.

Sincerely,



DENNIS A. DICKERSON
Executive Officer

Enclosure

cc: Rick Rempel, SWRCB - CWP

California Environmental Protection Agency



Unspecified
facility at
Slauson Boulevard and
Sorenson Avenue
(1744)

FINAL REPORT
PHASE II ENVIRONMENTAL ASSESSMENT
MULTITENANT PROPERTY
SLAUSON AND SORENSON AVENUES
SANTA FE SPRINGS, CALIFORNIA
FOR: CATELLUS DEVELOPMENT CORPORATION
D&M JOB NO. 14858-040-128

DECEMBER 26, 1991



DAMES & MOORE

LOS ANGELES, CALIFORNIA

1.3 BACKGROUND INFORMATION

Dames & Moore recently completed a Phase I Preliminary Site Assessment (PSA) for the subject property (PSA dated September 4, 1991). Two previous site uses of potential environmental concern were an above ground storage tank farm and a new car preparation facility. The tank farm occupied most of the property from the 1920's to the mid-1940's except for the northwest portion of the MTP (Figure 1A). The parking area for the new car preparation facility extended over most of the MTP. The northwest corner was occupied by a restaurant. The administration building and the north end of a carwash were located at the east side of the MTP and a portion of the import installation building was located in the southwest corner. New car preparation activities occurred at the property from 1963 through March, 1988. Figure 2 shows the former location of the new car preparation structures.

Groundwater sample results from previous investigations (Converse, March, 1991) indicated that groundwater has been impacted by the presence of chlorinated solvents and petroleum constituents. The data indicated that the presence of chlorinated solvents in groundwater is a regional phenomenon and did not appear to be attributed to sources related to past or present site use. Groundwater beneath the site has been calculated to flow in a southerly direction.

During construction of the MTP, grey-stained soil was encountered in August 1990, between buildings 13 and 15 during a sewer installation (Figure 2A). Analysis of soil samples collected from the excavation indicated that levels of total petroleum hydrocarbons (TPH) in the soil exceeded 100 mg/kg. This soil was subsequently removed by Converse during the sewer line construction. Seven confirmatory samples were collected and analyzed by Converse for TPH and benzene, toluene, ethylbenzene, and xylene (BTEX) by EPA methods 418.1 and 8020. The data showed that no BTEX was detected in the soil samples and that concentrations of TPH were either not detectable in four of the seven samples or less than 100 mg/kg in the other three samples. Regulatory agencies typically

use 100 mg/kg as a cleanup level for TPH. One soil sample collected by Converse from monitoring well GW-10 at 15 feet bgs by Converse, was found to contain 1200 mg/kg TPH, 1100 μ g/kg ethylbenzene, and 1800 μ g/kg xylenes. TPH was not detected in samples from the same boring from depths of 20 and 30 feet, but low levels (less than 4 μ g/kg) of BTEX were found.

2.0 PURPOSE AND SCOPE

The purpose of the Phase II Environmental Assessment program described herein for the Multitenant property was to: (1) evaluate potential soil contamination associated with former site use as a bulk above-ground oil storage facility; (2) evaluate soil affected by TPH and BTEX in the vicinity of GW-10; (3) evaluate soil conditions in the vicinity of the existing monitoring wells to assess whether volatile organic compounds (VOCs) found in groundwater are present in these soils; (4) evaluate the locations of former car preparation facilities and, if they were present onsite, evaluate soil conditions within the vicinity of these locations; (5) evaluate onsite groundwater quality; (6) evaluate the groundwater gradient on the site and the site area to provide information related to the direction of flow; (7) evaluate the potential for upgradient sources of groundwater contamination, and (8) evaluate soil in the area where TPH impacted soil was removed by Converse in August 1990.

To accomplish these objectives, Dames & Moore performed the following services:

- o Developed a detailed map showing the location of current and former onsite facilities;
- o Performed a soil gas survey at 29 locations throughout the site to evaluate soil gas for the presence of TPH and VOCs;
- o Using the results of the soil gas survey, drilled shallow soil borings for

the location of an elevated VOC measurement (S-28) detected during the soil gas survey.

Three borings were advanced to groundwater (approximately 30 feet bgs) in the vicinity of monitoring well GW-10. These borings were advanced in locations to the west, south, and east of GW-10 (Figure 3). One boring was advanced to groundwater in the vicinity of each of the other onsite monitoring wells (GW-4, GW-9, and GW-11). Seven borings were drilled to groundwater at locations shown on Figure 3.

Soil samples were generally collected at five-foot intervals from 5-foot bgs to approximately 25, 30 or 35-feet bgs, depending on the depth at which saturated soil was first encountered. Soils collected from the 10, 15, 25, and 30-foot bgs sample intervals were submitted for analysis for TPH as diesel and VOCs. These samples were retained in duplicate as described in Appendix A and submitted under proper chain of custody to a DHS-certified laboratory for analysis. Soil samples from the five-foot interval from borings DM-6 and GW-12 were also submitted for analysis for TPH and VOCs.

3.5 ADDITIONAL GROUNDWATER CHARACTERIZATION

One groundwater monitoring well was installed approximately halfway between Beasor Drive and Sorenson Avenue along Burke Street (Figure 2). This well (GW-12), in addition to the four existing wells (GW-4, GW-9, GW-10, and GW-11), was used to evaluate groundwater conditions on site. Well GW-12 was installed to provide additional information regarding groundwater flow direction and possible sources of groundwater contamination. Soil samples were collected from the monitoring well borehole at five-foot intervals beginning at 5 feet bgs. Four samples from approximate depths of 5, 10, 15, and 25 feet bgs were submitted for analyses for TPH and VOCs.

The screen interval for the monitoring well GW-12 was positioned from approximately 25 to 50 feet bgs. Approximately 10 feet of well screen extends above the current water table to accommodate a rise in groundwater which may occur as a result of

4.3 GROUNDWATER

Groundwater was first encountered in the boreholes at depths between approximately 25 to 32 feet bgs. Water level measurements made in September and October, 1991 indicated that groundwater encountered beneath the site is found within the Recent alluvium and the coarse-grained sediments interpreted to be the top of the Gage aquifer. On September 18, and October 9, 1991, depth to groundwater was measured in onsite monitoring wells GW-4, GW-9, GW-10, GW-11, and GW-12 (Table 2). Groundwater flow direction and gradient were calculated using water level data obtained from the five wells. The calculated groundwater flow direction for October, 1991 across the Multitenant property is toward the south at a gradient of 0.002 (Figure 4). The groundwater elevations for each monitoring well were entered into a computerized contouring program (Quick Surf) and plotted as Figure 4. Figure 4 represents the groundwater contours across the Multitenant property.

As discussed in the September 4, 1991 PSA report prepared by Dames & Moore, groundwater quality in the region has been impacted by releases of hazardous substances to soil and groundwater from several offsite sources in the area. As a result of these releases, chlorinated solvents such as tetrachloroethene (PCE), trichloroethene (TCE), and 1,2-dichloroethene (1,2-DCE) as well as dissolved metals have been detected in groundwater beneath the Multitenant property. Analytical data presented in a September, 1991 report prepared by Converse indicated that chlorinated compounds appeared in upgradient and downgradient monitoring wells.

Groundwater samples from each of the five onsite wells (GW-4, GW-9, GW-10, GW-11, and GW-12), a blind duplicate, and a trip blank were submitted for chemical analyses that included VOCs, TPH and BTEX, and CCR Title 26 metals. The analytical results are summarized in Table 3. Copies of the laboratory data reports for groundwater are contained in Appendix E. The findings are summarized below:

VOCs

- PCE was detected in samples from wells GW-4, GW-9, GW-11, and GW-12. The highest concentration was detected in samples collected from well GW-4 (350 $\mu\text{g/l}$). PCE was not detected in the sample from GW-10. Concentrations of PCE in the three other monitoring wells ranged from 15 to 90 $\mu\text{g/l}$. The detected concentrations of PCE exceed the California Maximum Contaminant Level (MCL) of 5 $\mu\text{g/l}$ for drinking water in four of the five onsite wells.
- TCE was detected in each of the five monitoring wells at levels ranging from 19 to 360. The highest concentration was detected in samples collected from GW-4. Concentrations of TCE exceed the MCL of 5 $\mu\text{g/l}$ for drinking water in each of the onsite wells.
- Trichlorotrifluoroethane (Freon 113) was detected in monitoring wells GW-4, GW-10, and GW-11 at levels ranging from 24 to 580 $\mu\text{g/l}$. The highest concentration was detected in samples from GW-4. The MCL of 1200 $\mu\text{g/l}$ was not exceeded.
- Trichlorofluoromethane (TCFM) was also detected in wells GW-4, and GW-10 at levels of 320 $\mu\text{g/l}$ and 12 $\mu\text{g/l}$, respectively. The MCL of 150 $\mu\text{g/l}$ was exceeded in well GW-4.
- 1,1-dichloroethene (1,1-DCE), was also detected in groundwater samples from monitoring wells GW-9, GW-10, and GW-12 at 57 $\mu\text{g/l}$, 16 $\mu\text{g/l}$, and 10 $\mu\text{g/l}$, respectively. The concentration of 1,1-DCE in each well exceeds the MCL of 6 $\mu\text{g/l}$.
- 1,2-DCE was also detected in GW-4. The concentration of 1,2-DCE (7 $\mu\text{g/l}$) in GW-4 is just above the MCL of 6 $\mu\text{g/l}$.
- Benzene was detected in GW-4 at a concentration of 2 $\mu\text{g/l}$. The MCL for benzene is 1 $\mu\text{g/l}$.
- No other VOCs were detected above the analytical limits of detection.

Fuel Hydrocarbons

- TPH analyses modified for gasoline indicated that TPH was not detected above the analytical limit of detection in the five monitoring wells.
- BTEX was not detected above the analytical limits of detection in four of the five monitoring wells. Benzene was detected in GW-4 (see above).

Metals

- Metals detected in groundwater samples include barium, chromium, copper, mercury, molybdenum, nickel, selenium, vanadium, and zinc.
- The only metal detected at a level at or above the established MCL is selenium at 22 $\mu\text{g/l}$ in GW-9. The MCL for selenium is 10 $\mu\text{g/l}$.

Figure 5 shows the distribution of chemical compounds detected in groundwater samples. The highest detected concentration of VOCs was found in monitoring well GW-4. GW-4 is located at the northeastern corner of the Multitenant property in an upgradient position. The concentrations of VOCs found in GW-4 were several times greater than the concentrations found in the other monitoring wells onsite. Concentrations of detected VOCs in wells located along the downgradient side of the property (GW-11 and GW-12) are generally similar to those concentrations detected in upgradient wells GW-9 and GW-10.

Laboratory analyses for metals indicated the presence of low levels of metals in groundwater onsite. There is no discernable pattern of distribution of metals in the groundwater.

5.0 DISCUSSION

Low levels of VOCs were detected in soil gas samples collected from 29 locations throughout the property. In all but one sample, the concentrations of individual VOCs was less than 4 ppmv. In one sample, S-28, 1,1-DCE was detected at 11.4 ppmv. The

TABLE 1
LABORATORY DATA - SOIL
MULTITENANT PHASE II INVESTIGATION

TPH (MODIFIED 8015) mg/Kg						
Boring	Depth (ft)	Gasoline	Kerosene	Diesel	Other TPHs (C22 - C50)	VOCs (EPA 8240) ug/Kg
DM-1	10	ND	ND	ND	ND	ND
	15	ND	ND	ND	ND	ND
	25	ND	ND	ND	ND	ND
	30	ND	ND	ND	ND	ND
DM-2	10	ND	ND	ND	ND	ND
	15	ND	ND	ND	ND	ND
	25	ND	ND	ND	ND	ND
	30	ND	ND	ND	ND	ND
DM-3	10	ND	ND	ND	ND	ND
	15	ND	ND	ND	ND	ND
	25	ND	ND	ND	ND	ND
DM-4	10	ND	ND	ND	ND	ND
	15	ND	ND	ND	ND	ND
	25	ND	ND	ND	ND	ND

TABLE 1
LABORATORY DATA - SOIL
MULTITENANT PHASE II INVESTIGATION

TPH (MODIFIED 8015) mg/Kg						
Boring	Depth (ft)	Gasoline	Kerosene	Diesel	Other TPHs (C22 - C50)	VOCs (EPA 8240) ug/Kg
DM-5	10	ND	ND	ND	ND	ND
	15	ND	ND	ND	ND	ND
	25	ND	ND	ND	ND	ND
DM-6	5	ND	ND	ND	ND	ND
	10	7,200	ND	2,600	7,000	ND
	15	2,200	ND	1,400	1,700	ND
	25	ND	ND	ND	ND	ND
DM-7	10	ND	ND	ND	ND	ND
	15	ND	ND	ND	ND	ND
	25	ND	ND	ND	ND	ND
DM-8	10	ND	ND	ND	ND	ND
	15	ND	ND	ND	ND	ND
	25	ND	ND	ND	ND	ND
DM-9	10	ND	ND	ND	ND	ND
	15	ND	ND	ND	ND	ND
	25	ND	ND	ND	ND	ND
DM-10	10	ND	ND	ND	ND	ND
	15	ND	ND	ND	ND	ND
	25	ND	ND	ND	ND	ND

TABLE 1
LABORATORY DATA - SOIL
MULTITENANT PHASE II INVESTIGATION

TPH (MODIFIED 8015) mg/Kg						
Boring	Depth (ft)	Gasoline	Kerosene	Diesel	Other TPHs (C22 - C50)	VOCs (EPA 8240) ug/Kg
DM-11	10	ND	ND	ND	ND	ND
	15	ND	ND	ND	ND	ND
	25	ND	ND	ND	ND	ND
DM-12	10	ND	ND	ND	ND	ND
	15	ND	ND	ND	ND	ND
	25	ND	ND	66	ND	ND
DM-13	10	ND	ND	ND	ND	ND
	15	ND	ND	ND	ND	ND
	25	ND	ND	ND	ND	ND
GW-12	5	ND	ND	ND	ND	ND
	10	ND	ND	ND	ND	ND
	15	ND	ND	ND	ND	ND
	25	ND	ND	ND	ND	ND

EXPLANATION:

VOCs - Volatile organic compounds
ug/Kg - Micrograms per kilograms
mg/Kg - Milligrams per kilogram
TPH - Total petroleum hydrocarbons

TABLE 2
MONITORING WELL INFORMATION/GROUND WATER EVALUATIONS
MULTITENANT PROPERTY

MONITORING WELL	GW-4	GW-9	GW-10	GW-11	GW-12
TOTAL DEPTH OF WELL (FT)	49	50	50	50	47
SCREEN INTERVAL (FT)	29-49	30-50	30-50	30-50	22-47
ELEV. OF WELL TOP OF CASING (FT-MSL)	147.52	148.01	148.46	148.07	149.85
DEPTH TO WATER FROM TOP OF CASING (FT) ON 10/9/91	32.56	32.46	33.33	33.78	35.28
ELEV. OF WATER (FT-MSL)	114.89	115.55	115.13	114.29	114.57
DATE INSTALLED	Dec-1990	Jan-1991	Jan-1991	Jan-1991	Oct-91

TABLE 3

**LABORATORY DATA - GROUNDWATER
MULTITENANT PROPERTY**

MONITORING WELL	TPH (8015) μg/L	BTEX (8020) μg/L				VOCs (8240) μg/L						
		B	T	E	X	1,1-DCE	TCE	FREON 113	TCFM	1,2-DCE (cis)	PCE	TOLUENE
MTP												
GW-4	ND	2	ND	ND	ND	ND	360	580	320	7	350	ND
GW-9	ND	ND	ND	ND	ND	57	40	ND	ND	ND	93	ND
GW-10	ND	ND	ND	ND	ND	16	190	24	12	ND	ND	62
GW-11	ND	ND	ND	ND	ND	ND	19	25	ND	ND	15	ND
GW-12	ND	ND	ND	ND	ND	10	74	ND	ND	ND	48	ND
MCL		1.0	1000	680	1750	6	5	1200	150	8	5	1000

μg/kg - Micrograms per liter
 PCE - tetrachloroethene
 TPH - Total Petroleum Hydrocarbons
 VOCs - Volatile Organic Compounds
 MCL - Maximum contaminant level

TCFM - trichlorofluoromethane
 1,1-DCE - 1,1-dichloroethene
 TCE - trichloroethene
 1,2-DCE - 1,2-dichloroethene

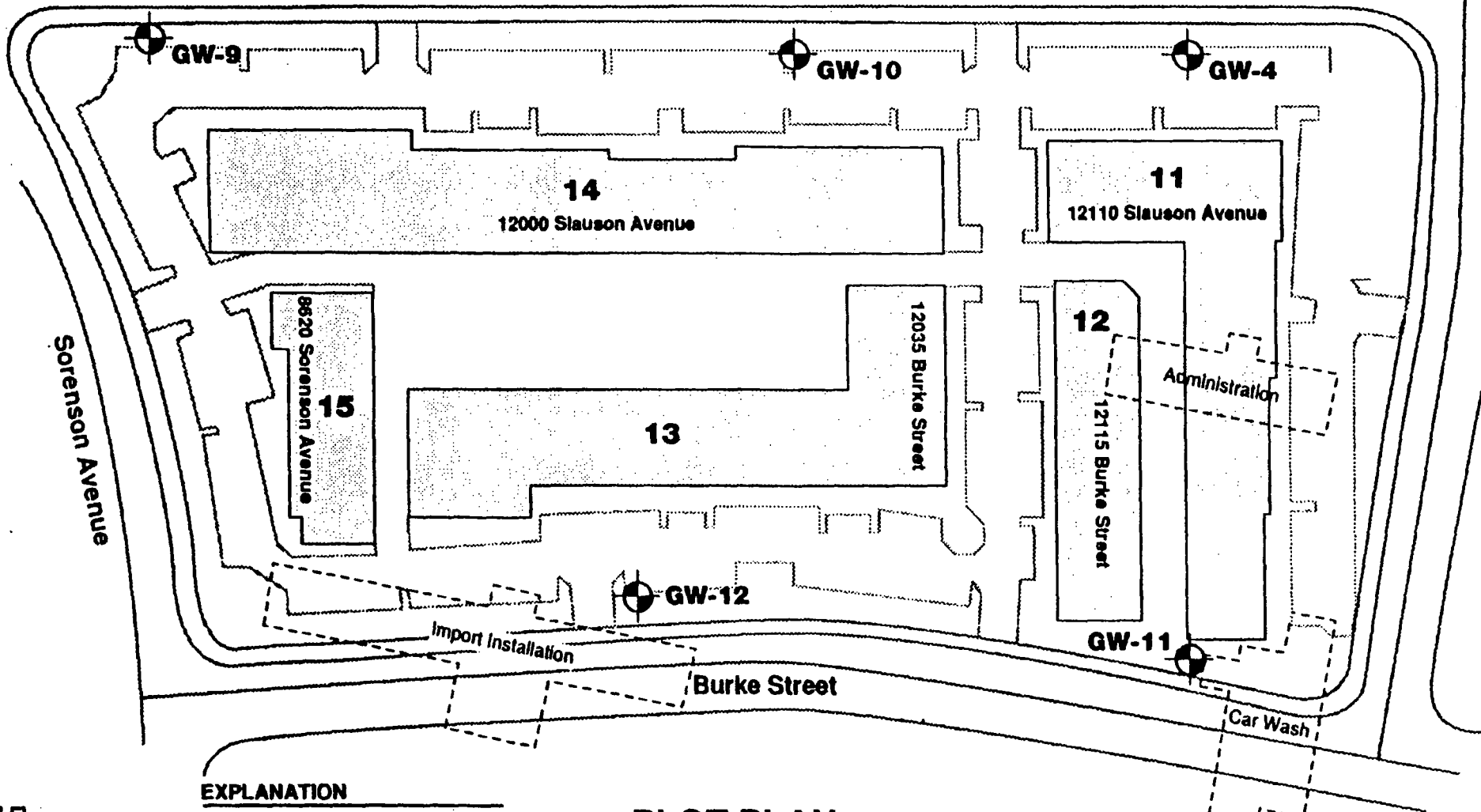
Table 3 (Continued)

LABORATORY DATA - GROUNDWATER
MULTITENANT PROPERTY

MONITORING WELL	METALS (µg/L)																
	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	V	Zn
MTP																	
GW-4	ND	ND	71	ND	ND	ND	ND	ND	ND	ND	ND	840	7.6	ND	ND	ND	110
GW-9	ND	ND	47	ND	ND	34	ND	ND	ND	ND	ND	88	22	ND	ND	ND	130
GW-10	ND	ND	39	ND	ND	23	ND	ND	ND	ND	37	140	8	ND	ND	ND	96
GW-11	ND	ND	58	ND	ND	ND	ND	13	ND	.23	ND	ND	ND	ND	ND	11	350
GW-12	ND	ND	110	ND	ND	35	ND	ND	ND	ND	ND	81	7.7	ND	ND	27	1000
MCL		50	1000		10	50		1000	50	2			10	50			5000



Slauson Avenue




EXPLANATION

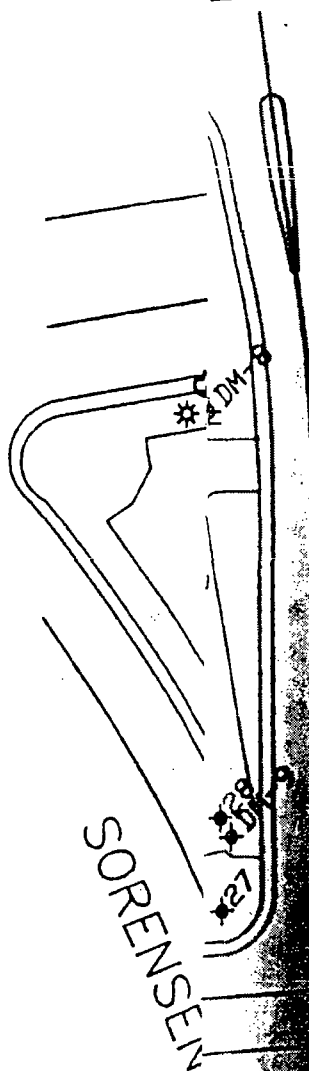
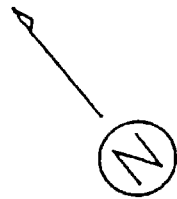
GW-11  Monitoring Well
Location and Designation

PLOT PLAN

MULTITENANT PROPERTY
12000-12110 SLAUSON AVE.
Santa Fe Springs, California

For Catellus Development Corporation

0 50 100

Approximate
Scale in Feet



KEY

* 28

SOIL GAS SURVEY POINT

* DM-12

DAMES & MOORE BORING LOCAT

* GW-12

GROUNDWATER MONITORING WEL

NO
Vols

GW-10
15^A = 1200 mg/kg TP.
1000 - Ethylb
1800 - Xylene

20
NO TPH
1.5 B
3.5 T
2.8 E
1.2 X

30
NO TPH
1.0 B
2.0 T
0.6 E
1.0 X

PRELIMINARY SITE ASSESSMENT

Catellus Development Corporation

Multitenant Property

12000-12110 Slauson Avenue

12035 and 12115 Burke Street

8620 Sorenson Avenue

Santa Fe Springs, California

Project No. 14858-029-128

September 4, 1991

 **DAMES & MOORE**

Los Angeles, California

1970's until the restaurant and car preparation facilities were demolished in 1988 for construction of the new buildings. From observation of aerial photographs and review of previous reports, it appears that an administration building and new car parking space occupied the rest of the Multitenant property. The new car preparation operations were located the adjacent Central and LaSalle properties. In 1988, Chrysler discontinued operations at the facility and removed their equipment, USTs, and clarifiers per the request of Catellus.

5.2 SUMMARY OF PREVIOUS ENVIRONMENTAL INVESTIGATIONS

The reports summarized below address investigations of the original 40-acre parcel from which the Multitenant property is a 9-acre portion (Figure 9). Most of the investigative activities did not occur at the Multitenant property but rather on the adjacent properties known as the Central and LaSalle properties. The LaSalle property, located at 12310 Slauson Avenue, occupies approximately 10 acres at the eastern portion of the original 40-acre property. The Central property, located between the Multitenant property and the LaSalle property, occupies approximately 21 acres. Known operations related to new car preparation performed by General Motors and Chrysler occurred on the Central and LaSalle properties. The Multitenant property was the location of the administrative building, parking areas, and restaurant observed on the aerial photographs.

5.2.1 Soil Investigations

August 1963: Geotechnical Report by Western Laboratories

A report entitled "Excavation and Compacted Fill Report" prepared by Western Laboratories and dated August, 1963 indicated the entire 40-acre property was previously undeveloped and covered with native vegetation. In 1963, the vegetation was removed and

the site was graded in preparation for an asphalt-covered parking area. During the grading process, fill material was placed and compacted throughout the site. No indication that contamination or evidence of contamination was encountered during excavation/fill operations was noted in the report.

May, 1988: Results of Limited Field Investigation by McLaren Environmental Engineering

Several hand auger borings were advanced on the adjacent Central property located directly east of the MTP to evaluate the potential for soil contamination. Analytical results revealed non-detectable levels of TPH, low levels of metals and 30.0 $\mu\text{g}/\text{kg}$ of TCE. The samples that yielded trace levels of TCE were collected at 1.0 foot below ground surface (bgs) in a service area located south of the site. No samples were collected on the MTP.

A plot plan presented in the McLaren report indicates that no USTs, clarifiers, sumps, service pits or areas, or wash stations were located on the Multitenant property.

May 22, 1989: Preliminary Geotechnical Investigation by Converse Consultants

As part of the construction of the five office buildings on the MTP, Converse Consultants completed a preliminary geotechnical investigation at the property. The investigation consisted of advancing five geotechnical soil borings to a depth of approximately 30 feet bgs at the property. All soil samples were screened in the field with an organic vapor analyzer (OVA). Organic vapors were not detected by the OVA. No other field evidence that would indicate soil contamination (such as soil staining or hydrocarbon odors) was noted on the boring logs.

The upper 10 feet of sediments were found to consist of dense, moist silt to clay. At approximately 15 feet bgs, the material grades from silt to fine sand. Ground water was not encountered during the investigation.

December, 1990: Preliminary Soil and Ground-water Investigation by Converse Consultants

A soil and ground-water investigation was performed by Converse Consultants primarily on the Central property located to the east and south of the Multitenant property. Ground-water monitoring wells were installed for sampling of ground water. One of these wells (GW-4) is located at the upgradient side of the Multitenant property. Analytical results presented in the report indicate that chlorinated solvents and benzene were found in the ground-water sample. Converse apparently did not have soil samples from GW-4 analyzed.

March, 1991: Soil and Ground-water Investigation by Converse Consultants

Recent analytical data provided by Converse Consultants indicates that significant concentrations of TPH and chlorinated solvents were detected in soils underlying a former clarifier located within the Central property and approximately 450 feet southeast of the Multitenant property. TPH concentrations ranged up to 13,000 mg/kg for a sample collected at 22 feet bgs beneath the former clarifier. Trichloroethene (TCE), tetrachloroethene (PCE) and 1,1-dichloroethene (DCE) ranged up to 340 $\mu\text{g/kg}$, 3,800 $\mu\text{g/kg}$ and 1,200 $\mu\text{g/kg}$, respectively. As a result of elevated readings, Converse Consultants excavated approximately 1,000 cubic yards of soils associated with the former clarifier. During the excavation process, visual evidence of soil staining was observed by field personnel and later confirmed by analytical testing down to a depth of approximately 33 feet bgs.

5.2.2 Ground-water Investigations

December, 1990: Preliminary Soil and Ground-water Investigation by Converse Consultants

In November and December 1990, following the detection of chemicals in the soils beneath a former clarifier located on the Central property, a ground-water investigation was initiated by Converse Consultants. Seven ground-water monitoring wells (GW-1 through GW-7) were installed during the investigation. GW-4 is located on the Multitenant property.

Ground water was encountered at approximately 33 feet bgs with the exception of well GW-1, located on the southern portion of the adjacent Central property where ground water was located at approximately 37 feet bgs. Ground-water elevation measurements indicated a ground-water gradient of 0.002 feet per foot to the south-southwest.

Ground-water samples were collected from all seven wells and analyzed for halogenated hydrocarbons by EPA Method 601. The results indicated the presence of the following halogenated compounds:

- DCE ranging from 4.2 to 1,400 micrograms per liter ($\mu\text{g/l}$);
- PCE ranging from 2.1 to 520 $\mu\text{g/l}$;
- TCE ranging from 63.2 to 500 $\mu\text{g/l}$;
- 1,1,1-TCA ranging from less than 0.5 $\mu\text{g/l}$ (non-detectable) to 14 $\mu\text{g/l}$; and
- Trichlorofluoromethane ranging from non-detectable to 310 $\mu\text{g/l}$.

Ground-water samples from selected monitoring wells were also analyzed for aromatic hydrocarbons by EPA Method 602. The results indicated benzene in a well

upgradient from the clarifier at 10 $\mu\text{g/l}$. Aromatic hydrocarbons were not detected in the remaining wells.

March, 1991: Additional Soil and Ground-water Investigation by Converse Consultants

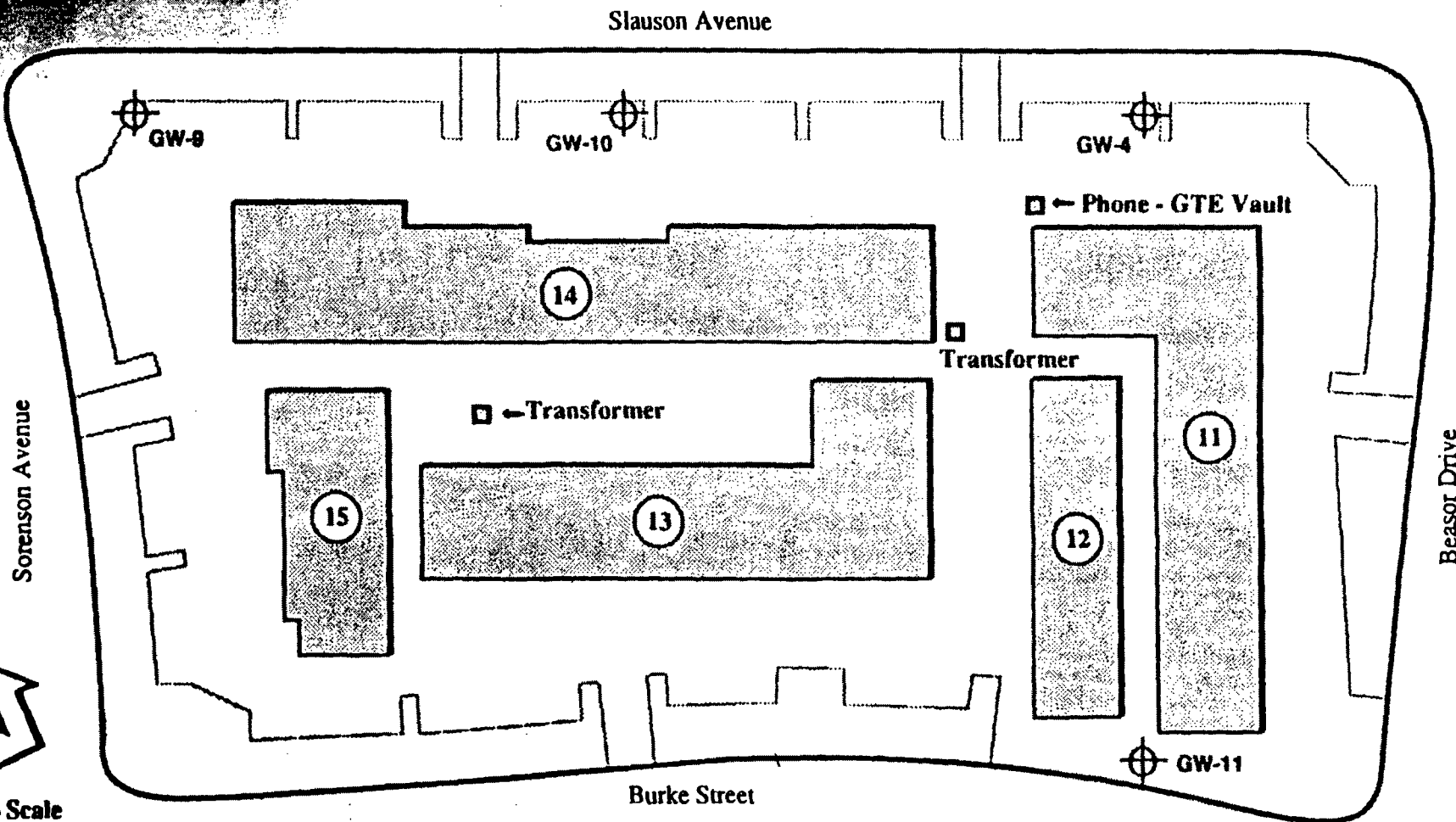
Converse Consultants installed four additional ground-water monitoring wells (GW-8 through GW-11). Monitoring wells GW-9, GW-10, and GW-11 are located on the Multitenant property. Details regarding well construction and data on ground-water gradients indicate that the wells were installed to a maximum depth of approximately 50 feet bgs. Ground water was encountered at approximately 33 feet bgs. The ground-water gradient was reported to be to the south-southwest.

Ground-water samples collected from all eleven wells were analyzed for halogenated and aromatic hydrocarbons by EPA Methods 601 and 602, respectively. The results indicated the following:

- DCE ranging from 7.8 to 980 $\mu\text{g/l}$;
- 1,2-DCA ranging from non-detectable to 3.3 $\mu\text{g/l}$;
- PCE ranging from 3.3 to 450 $\mu\text{g/l}$;
- TCE ranging from 4.0 to 420 $\mu\text{g/l}$;
- 1,1,1-TCA ranging from non-detectable to 12 $\mu\text{g/l}$;
- Chloroform ranging from non-detectable to 10 $\mu\text{g/l}$;
- Trichlorofluoromethane ranging from non-detectable to 370 $\mu\text{g/l}$;
- Benzene ranging from non-detectable to 370 $\mu\text{g/l}$;
- Toluene ranging from non-detectable to 2.0 $\mu\text{g/l}$;
- Ethylbenzene ranging from non-detectable to 6.0 $\mu\text{g/l}$; and
- Xylenes ranging from non-detectable to 16 $\mu\text{g/l}$.



Not to Scale



EXPLANATION



GW-11 Monitoring Well
Location and Designation

PLOT PLAN

MULTITENANT PROPERTY
12000-12110 SLAUSON AVE.
Santa Fe Springs, California

For Catellus Development Corporation

Building Numbers

- (11) 12110 Slauson Avenue
- (12) 12115 Burke Street
- (13) 12035 Burke Street
- (14) 12000 Slauson Avenue
- (15) 8620 Sorenson Avenue

197C

FILE



UNSpecified
Facility at
12000 Slauson Ave.

ENVIRONMEN'

FOR

CATELLUS DEVELOPMENT CORPORATION

REPORT
SUPPLEMENTAL PHASE II ENVIRONMENTAL ASSESSMENT
REMOVAL
MULTITENANT PROPERTY
12000 SLAUSON AVENUE
SANTA FE SPRINGS, CALIFORNIA
FOR: CATELLUS DEVELOPMENT CORPORATION
D&M JOB NO. 14858-043-128

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APRIL 9, 1992



DAMES & MOORE

River and southwest of the Puente Hills on the eastern portion of the Los Angeles Coastal Plain. This portion of the coastal plain, referred to as the Santa Fe Springs Plain, is a low, slightly rolling, topographic feature that slopes to the northeast and southwest. Sediments of quaternary age comprise the formations in the site vicinity. These sediments, divided into Recent and Pleistocene series, are folded over the anticlinal structure of the Santa Fe Springs Plain. Sediments in the site vicinity are thought to be of Recent series, and consist of stream deposited sand, gravel, silt, and clay alluvium. Underlying the Recent alluvium, the water-bearing Pleistocene series is divided into upper Pleistocene and lower Pleistocene. The upper Pleistocene is represented by the Lakewood Formation and the lower Pleistocene by the San Pedro Formation. Within the site vicinity the Lakewood Formation includes the Gage Aquifer, the basal member of the formation. The Gage aquifer generally consists of sand with variable amounts of gravel. Sandy gravel encountered at approximately 48 to 50 feet bgs in the onsite monitoring wells is considered to be the top of the Gage aquifer. The most important aquifers used for groundwater production are contained within the San Pedro Formation.

Groundwater is generally encountered at a depth of approximately 30 to 32 feet bgs beneath the site and has been calculated to move to the south-southeast.

1.3 BACKGROUND INFORMATION

This section summarizes the results of the previous investigations of the MTP site conducted by Dames & Moore.

Phase I Preliminary Site Assessment

Dames & Moore's Phase I Preliminary Site Assessment (PSA) for the MTP (dated September 4, 1991) indicated that there was potential environmental concern due to former site use as an above ground storage tank farm and a new car preparation facility. The tank farm occupied most of the property from the 1920's to the mid-1940's except for the

northwest portion of the MTP. The parking area for the new car preparation facility extended over most of the MTP. The northwest corner was occupied by a restaurant. The administration building and the north end of a carwash were located at the east side of the MTP and a portion of the import installation building was located in the southwest corner. New car preparation activities occurred at the property from 1963 through March, 1988.

The results of a groundwater investigation previously conducted by Converse Consultants (Converse, March, 1991) indicated that shallow groundwater beneath the MTP and vicinity has been impacted by the presence of chlorinated solvents and benzene. The data indicated that the presence of chlorinated solvents in groundwater is a regional phenomenon and did not appear to be attributed to sources related to past or present uses of the MTP site.

During construction of the MTP, grey-stained soil was encountered in August 1990, between buildings 13 and 15 during a sewer installation. Analysis of soil samples collected from the excavation indicated that levels of total petroleum hydrocarbons (TPH) in the soil exceeded 100 mg/kg. This soil was subsequently removed by Converse during the sewer line construction. Seven confirmatory samples were collected and analyzed by Converse for TPH and benzene, toluene, ethylbenzene, and xylene (BTEX) by EPA methods 418.1 and 8020. The data showed that no BTEX was detected in the soil samples and that concentrations of TPH were either not detectable in four of the seven samples or less than 100 mg/kg in the other three samples. Regulatory agencies typically use 100 mg/kg as a cleanup level for TPH. One soil sample collected by Converse from monitoring well GW-10 at 15 feet bgs by Converse, was found to contain 1200 mg/kg TPH, 1100 μ g/kg ethylbenzene, and 1800 μ g/kg xylenes. TPH was not detected in samples from the same boring from depths of 20 and 30 feet, but low levels (less than 4 μ g/kg) of BTEX were found.

Phase II Environmental Assessment

To further evaluate the possible presence of petroleum affected soils due to the historic tank farm at the MTP, Dames & Moore performed a Phase II Environmental Assessment. In addition to the investigative activities described in Section 1.0 for the entire MTP, three borings were located within several feet of monitoring well GW-10. TPH was previously detected in soil samples collected while installing monitoring well GW-10. These three borings (DM-4, DM-5, and DM-6) were located in the vicinity of monitoring well GW-10 to further evaluate the soils for the presence of TPH and VOCs (Figure 3). TPH and VOCs were not detected in soil samples collected from DM-4 and DM-5. TPH was detected in soil samples collected from boring DM-6 from 10 and 15 feet bgs at concentrations of 16,800 mg/kg and 5300 mg/kg, respectively. VOCs were not detected in soil samples collected from DM-6.

Dames & Moore recommended that the lateral and vertical extent of TPH affected soils in the vicinity of DM-6 be further evaluated and that the soils be excavated.

2.0 PURPOSE AND SCOPE

The purpose of the Supplemental Environmental Assessment program described herein was to: (1) further evaluate the lateral and vertical extent of TPH impacted soil in the vicinity of boring DM-6 and monitoring well GW-10; and (2) remove the accessible TPH impacted soils on the MTP to concentrations below 100 milligrams per kilogram (mg/kg).

To accomplish these objectives, Dames & Moore performed the following services:

- o Drilled six exploratory soil borings (DM-14 through DM-19) on the MTP for the collection of subsurface soils for analytical testing in the vicinity of monitoring well GW-10. Soil samples were collected at approximately five-foot intervals from five feet bgs to approximately 30 feet bgs;

- Drilled three exploratory soil borings (DM-20, DM-21, and DM-22) in the Slauson Avenue roadway for the collection of subsurface soils for analytical testing. Soil samples were collected at approximately five-foot intervals from five feet bgs to approximately 28 to 29 feet bgs;
- Obtained an encroachment permit from the City of Santa Fe Springs to drill borings DM-20 through DM-22 in the Slauson Avenue roadway;
- Logged boreholes and classified soils using the Unified Soil Classification System;
- Analyzed selected soil samples from borings DM-14 through DM-19 for TPH by EPA method 8015 modified for diesel and BTEX by EPA method 8020;
- Analyzed selected soil samples from borings DM-20 through DM-21 for TPH by EPA method 8015 modified for diesel and gasoline and BTEX by EPA method 8020;
- Excavated approximately 700 tons of TPH affected soil from the property in the vicinity of GW-10;
- Abandoned monitoring well GW-10 during excavation of the soil;
- Monitored the excavation and collected confirmation soil samples from the excavation sidewalls and base. Soil samples of the overburden were also collected;
- Analyzed six overburden and eight confirmatory soil samples for TPH by EPA method 8015 modified for gasoline and diesel and BTEX by EPA method 8020 using a mobile laboratory;

Monitoring well GW-10 was abandoned during the soil excavation due to its location within the excavation. The casing was pulled from the ground and a cement bentonite grout poured into the remains of the monitoring well.

3.4 ANALYTICAL PROGRAM

Soils collected from the 10, 15, 20, and 25-foot bgs sample intervals from borings DM-14 through DM-19 were submitted for analysis for TPH as diesel and BTEX using modified EPA methods 8015 modified and 8020. Soil samples from the five-foot depth interval were not analyzed because data from previous investigations indicated that TPH and BTEX were not present in detectable concentrations at five feet. The samples were retained in duplicate and submitted under proper chain of custody to a DHS-certified laboratory for analysis. A soil sample from the 30-foot interval from boring DM-14 was also submitted for analysis for TPH and BTEX.

Soil samples from the excavation and overburden soils, and borings DM-20 through DM-22 were analyzed onsite within minutes of collection by a certified laboratory for TPH as diesel and gasoline and BTEX by EPA methods 8015 modified and 8020, respectively. Copies of the laboratory reports for the soils collected from the borings are presented in Appendix B. Copies of the laboratory reports for the soil samples from the excavation and overburden are presented in Appendix C.

Laboratory analyses of soil samples were conducted by Analytical Laboratory Service, Inc. (ALS) and Transglobal Environmental Geochemistry (TEG). ALS and TEG are California EPA certified laboratories for the analyses performed. With each analytical report, the laboratory submitted results of various laboratory QA/QC analyses such as surrogate recoveries and various practical quantitative limits.

4.0 INVESTIGATIVE AND ANALYTICAL RESULTS

The Supplemental Phase II Environmental Assessment completed the characterization of the vertical and lateral extent of TPH affected soils in the vicinity of monitoring well GW-10 along Slauson Avenue.

Lithologic logs of the nine borings, presented in Appendix A, indicate that the subsurface soils are generally sandy silts, silty sands, and clayey silts.

A hydrocarbon like odor was associated with samples from approximate depths of five to 25 feet bgs in borings DM-14, DM-15, DM-16, and DM-19. Grey (apparently stained) soils were encountered from approximately five to 25 feet bgs in boring DM-14, and from approximately 10 to 25 feet bgs in borings DM-15 and DM-16. Soils encountered in borings DM-17, DM-18, and DM-19 were observed to be the native (brown and olive-grey) color.

Results of the laboratory analysis of the soil samples are shown in Table 1. Copies of the laboratory data sheets are presented in Appendix B. The analytical results for borings DM-14 through DM-19 are summarized below:

- o TPH was detected in 14 of the 24 samples analyzed. TPH identified as diesel was detected in samples from borings DM-14, DM-15, DM-16, DM-18, and DM-19.
- o No TPH was detected in samples from boring DM-17.
- o TPH was not detected in the bottom sample collected from each boring.
- o Benzene was detected in one sample collected in boring DM-14 from 10 feet bgs.
- o Toluene was detected in five samples collected from 10 and 15 feet bgs in borings DM-14 and DM-15, and from 10 feet bgs in boring DM-16.
- o Ethylbenzene was detected in six samples from borings DM-14, DM-15, and

DM-16.

- Xylenes were detected in seven samples from borings DM-14, DM-15, and DM-16.
- No BTEX was detected in the bottom samples collected from each boring.

The TPH was generally quantified within the diesel range. However, other hydrocarbons beyond the range of diesel fuel were also detected. These results are similar to those found in soil samples from adjacent monitoring well GW-10 and adjacent borings DM-4, DM-5, and DM-6 during a previous investigation.

With this data, the vertical and lateral extent of TPH affected soils was characterized to the east, south and west of monitoring well GW-10. Due to the irrigation lines, utilities, and proximity to the property line, only one boring, DM-15, was located north of GW-10.

Excavation of the TPH affected soils began on March 17, 1992 and concluded on March 18, 1992. Grey stained soils were encountered during excavation procedures from approximate depths of five to 22 feet bgs. The excavation measured approximately 42 feet wide by 50 feet long by 22 feet deep. The northern edge of the excavation was within two feet of the property line (Figure 2). Approximately 700 tons of soil were removed and hauled to McKittrick Waste Disposal in McKittrick, California. TEG provided mobile laboratory services on March 17, 1992 so that all soil samples were analyzed within 24 hours of collection. Laboratory data from excavated soils is presented in Table 2 and copies of the laboratory data sheets are presented in Appendix C.

Overburden soils to an approximate depth of five feet bgs were saved for use as backfill. Five samples of the overburden soil (SS-1, SS-2, CS-1 through CS-3) were analyzed for TPH as gasoline and diesel by EPA modified method 8015 and BTEX by EPA method 8020. One sample (CS-2) was apparently collected from TPH affected soil as the data indicated a concentration of TPH as diesel in excess of 100 mg/kg. The soil from the vicinity of CS-2 was removed from the property and disposed at McKittrick. Neither TPH

nor BTEX was detected in the remaining overburden samples.

Once the walls and base of the excavation appeared to be the native brown color, soil confirmation samples (P-1 through P-8) were collected and analyzed for TPH as gasoline and diesel by EPA modified method 8015 and BTEX by EPA method 8020. TPH and BTEX were not detected in the confirmation samples.

Some grey stained soils remained at the north end of the excavation at the property line. A soil confirmation sample was collected from this wall (P-6) to provide an indication of the concentration of TPH remaining in the soils along the property boundary. The data indicate that 4537 mg/kg TPH, 0.26 mg/kg benzene, and 0.52 mg/kg toluene were present in the sample collected from the north wall of the excavation. The trace levels of benzene and toluene detected in this soil sample indicate that the affected soil contaminants are primarily long chain, relatively immobile hydrocarbons. These soils were left in place for the following reasons: (1) the limits of the excavation had reached to within two feet of the north property boundary; (2) The City of Santa Fe Springs had not granted permission to encroach upon their property; (3) two gas mains run adjacent to the property boundary in this location. Excavation to within less than two feet of these utilities would have been imprudent; and (4) the walls of the excavation could not be expanded to the north without creating an unstable condition for the adjacent roadway.

During the excavation procedure, a small wooden structure and two metal pipes were encountered. The pipes were removed from the excavation and inspected. No fluids or other material were observed. The structure was approximately four feet wide on each side and approximately four feet deep. It was constructed of wooden timbers and was found at approximately five feet bgs near the northeastern corner of the excavation. A glass bottle and a crushed metal drum were recovered from the interior of the structure. A soil sample (P-4) collected from soil within the drum was analyzed for TPH and BTEX. No detectable concentrations of TPH or BTEX were reported in the soil sample from within the drum.

The glass bottle contained a liquid that was delivered to ALS where it was decanted for analysis. ALS reported that the bottle contained two separate phases of material; a water phase and a asphalt/tar like material floating on the water. The water phase was analyzed for TPH as gasoline and diesel by modified EPA method 8015. TPH quantified in the diesel range was detected at 96.6 mg/L in the water. The asphalt phase was analyzed for TPH by EPA method 418.1. TPH was detected at 134,000 mg/kg in the asphalt. Laboratory data sheets for the analysis are included in Appendix D.

The excavation was backfilled with crushed aggregate and native soil on March 19 and 20, 1992. A polyethylene liner was placed between the north wall of the excavation and the backfill materials. A Dames & Moore geotechnical engineer was present to observe the material as it was placed into the excavation and to perform field tests to indicate that appropriate compaction of the backfill materials had been performed.

Three additional borings (DM-20 through DM-22) were drilled beneath Slauson Avenue on April 4, 1992 to further evaluate the northern extent of the TPH affected soil. Results of the laboratory analysis of the soil samples are shown in Table 1. These borings were placed in the roadway because of restricted access near the property boundary due to public utilities along the property boundary and beneath the adjacent sidewalk. Boring DM-20 was located approximately 27 feet north of the property boundary. Borings DM-21 and DM-22 were located approximately 17 feet north of the property boundary. Because of the public utilities at the property boundary, beneath the sidewalk, and within the street, these borings could not be placed in closer proximity. Neither TPH nor BTEX was detected in the 14 samples analyzed from these borings.

5.0 CONCLUSIONS AND RECOMMENDATIONS

This report concludes the Supplementary Phase II investigation at the Multitenant property. The following conclusions and recommendations were reached based on the field observations and laboratory data.

TPH affected soils were found on the MTP in the location shown on Figure 3. Several borings were drilled to evaluate the vertical and lateral extent of TPH in the soil. Soils encountered while drilling were generally fine grained, consisting of sandy silts and silty clays. The results of analysis of the soils collected from each boring and visual observation of the soil samples indicated that the extent of TPH affected soil was limited to an area not more than 22 feet bgs and bounded by borings DM-4, DM-5, and DM-17. The TPH affected soil was then excavated and disposed at McKittrick Waste Disposal Site. Visual inspection of the excavation indicated that the affected soils were grey rather than the native brown color and were limited to the extent of the excavation to the east, south, and west.

The TPH affected soils were removed to within two feet of the north property boundary. TPH affected soils north of the property boundary were left in place due to proximity to public utilities and to preserve the integrity of the Slauson Avenue roadway. Soil samples were obtained from boreholes placed in Slauson Avenue approximately 17 feet north of the property boundary, seventeen feet was as close as the borings could be placed due to utilities. Sample results indicated that the soils in that location were not affected by TPH nor BTEX. This indicates that the TPH affected soils remaining adjacent to the property boundary are limited in extent and do not cover an area larger than that existing between the limits of the excavation at the property boundary (approximately 25 feet) and the borings 17 feet to the north. The TPH affected soils do not extend 17 feet into the street (and probably extend much less than 17 feet); visual observations at the site and laboratory data from sample P-6 indicate that the concentration of TPH was decreasing at the limits of the excavation.

The laboratory data also indicate that the TPH affected soils found on the MTP did not extend to, nor were they in contact with shallow groundwater. The bottom of the remaining TPH affected soils is at approximately 22 feet bgs, or approximately 8 feet above the groundwater table. TPH has not been found in groundwater samples collected and analyzed during previous investigations.

Based on the findings of this investigation, the TPH affected soils have been remediated by excavation and offsite disposal with the exception of some remaining TPH affected soil along the northern face of the excavation. It is Dames & Moore's opinion that the investigations and remediation performed to date have been adequate to address the potential environmental concerns at the MTP previously identified by Dames & Moore. This opinion is based on the data collected during the Dames & Moore Phase I, Phase II, and Supplemental Phase II Investigations.

Dames & Moore does not recommend additional subsurface investigation or remedial activity for the MTP, including the TPH affected soil adjacent to the property boundary; it is likely that regulatory agencies would concur with this recommendation.

6.0 LIMITATIONS

The conclusions and recommendations presented in this report are professional opinions based solely upon observations of the site and our interpretation of the available analytical data as described in this report. They are intended exclusively for the purpose outlined herein and at the site location and project indicated. This report is for the sole use of Catellus Development Corporation. The scope of services performed in the execution of this investigation may not be appropriate to satisfy the needs of other users, and any reuse of this document or the findings, conclusions, or recommendations presented herein is at the sole risk of said user(s).

Opinions and recommendations presented herein apply to site conditions existing at the time of our investigation and those conditions reasonably foreseeable. They cannot necessarily apply to site changes or changes in applicable standards and practices of which this office is not aware and has not had the opportunity to evaluate. This report is intended for use in its entirety; no excerpt may be taken to be representative of the findings of this investigation.

TABLE 1
LABORATORY DATA - SOILS
MULTITENANT SUPPLEMENTAL INVESTIGATION

Boring	Depth (feet)	TPH Modified EPA 8015 mg/kg (diesel)	Volatile Organics EPA 8020 (mg/Kg)			
			Benzene	Toluene	Ethylbenzene	Xylenes
DM-14	10	2,150	0.41	0.51	1.70	4.20
	15	3,480	ND	1.61	3.65	4.85
	20	480	ND	ND	0.33	1.00
	25	72	ND	ND	ND	2.67
	30	ND	ND	ND	ND	ND
DM-15	10	20,600	ND	0.47	7.48	14.8
	15	6,900	ND	0.42	1.98	7.94
	20	290	ND	ND	ND	ND
	25	ND	ND	ND	ND	ND
DM-16	10	942	ND	0.19	0.91	4.82
	15	83	ND	ND	ND	ND
	20	625	ND	ND	ND	ND
	25	ND	ND	ND	ND	ND
DM-17	10	ND	ND	ND	ND	ND
	15	ND	ND	ND	ND	ND
	20	ND	ND	ND	ND	ND
DM-18	10	320	ND	ND	ND	ND
	15	47.1	ND	ND	ND	ND
	20	ND	ND	ND	ND	ND
	25	ND	ND	ND	ND	ND
DM-19	10	ND	ND	ND	ND	ND
	15	86	ND	ND	ND	ND
	20	71	ND	ND	ND	ND
	25	ND	ND	ND	ND	ND

TABLE 1 (Continued)

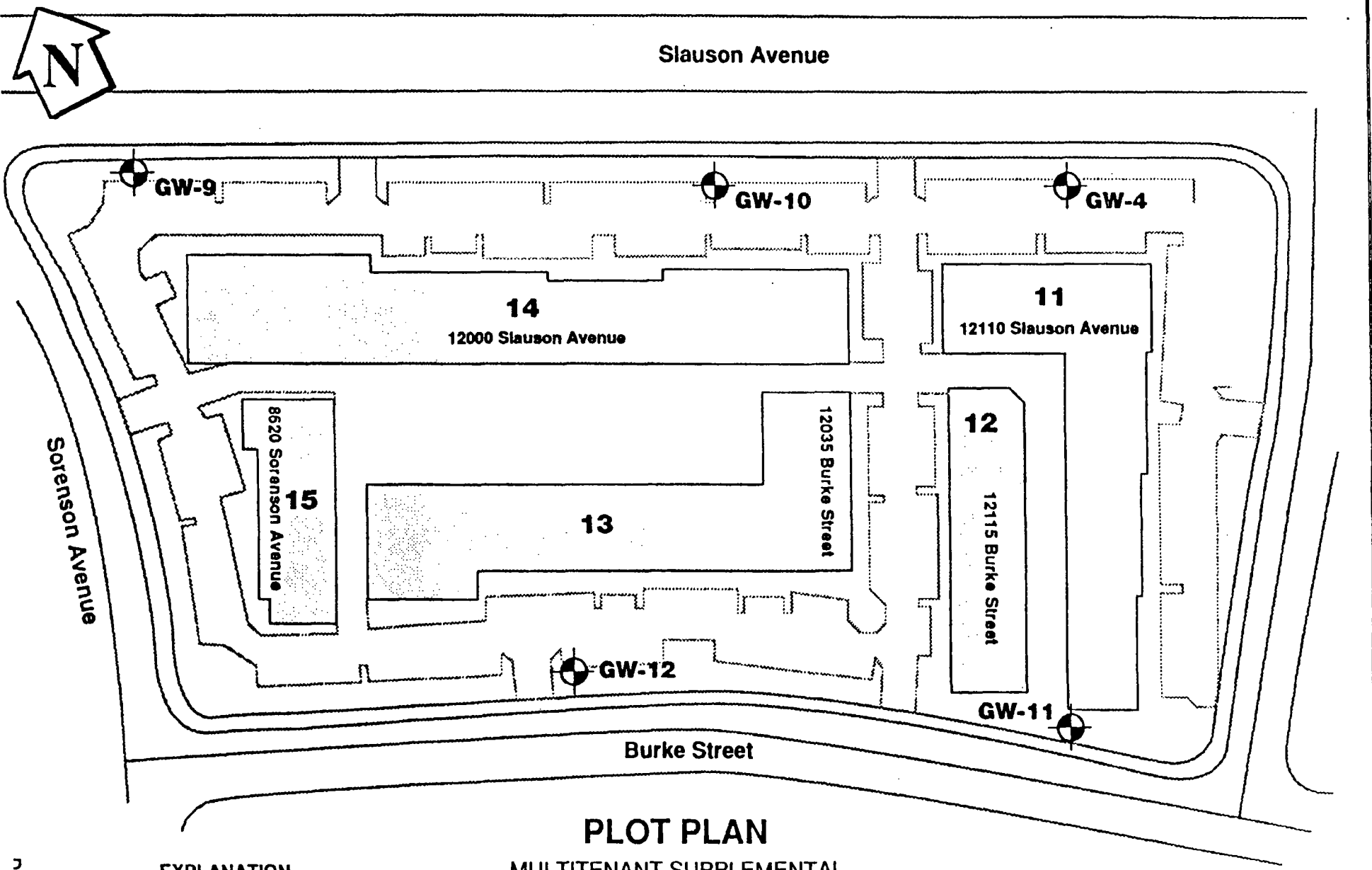
**LABORATORY DATA SOILS
MULTITENANT SUPPLEMENTAL INVESTIGATION**

Boring	Depth (feet)	TPH Modified EPA 8015 mg/kg (diesel)	Volatile Organics EPA 8020 (mg/Kg)			
			Benzene	Toluene	Ethylbenzene	Xylenes
DM-20	5	ND	ND	ND	ND	ND
	10	ND	ND	ND	ND	ND
	15	ND	ND	ND	ND	ND
	20	ND	ND	ND	ND	ND
	25	ND	ND	ND	ND	ND
DM-21	10	ND	ND	ND	ND	ND
	15	ND	ND	ND	ND	ND
	20	ND	ND	ND	ND	ND
	25	ND	ND	ND	ND	ND
	28	NA	NA	ND	ND	ND
DM-22	10	ND	ND	ND	ND	ND
	15	ND	ND	ND	ND	ND
	20	ND	ND	ND	ND	ND
	25	ND	ND	ND	ND	ND
ND - not detected above analytical limits of detection mg/kg - milligram per kilogram TPH - total petroleum hydrocarbons NA - sample not analyzed						

TABLE 2
LABORATORY DATA - EXCAVATION SOILS

SAMPLE LOCATION	MODIFIED EPA 8015		EPA 8020			
	TPH DIESEL mg/kg	TPH GASOLINE mg/kg	BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	XYLENE mg/kg
SS-1 Overburden	ND	ND	ND	ND	ND	ND
SS-2 Overburden	ND	ND	ND	ND	ND	ND
CS-1 Overburden	ND	ND	ND	ND	ND	ND
CS-2 Overburden	ND	143 _Δ	ND	ND	ND	ND
CS-2 dup. Overburden	ND	230 _Δ	ND	ND	ND	ND
CS-3 Overburden	ND	ND	ND	ND	ND	ND
P-1-1 West wall	ND	ND	ND	ND	ND	ND
P-2-1 South wall	ND	ND	ND	ND	ND	ND
P-3-1 Base-center (NW)	ND	ND	ND	ND	ND	ND
P-4-1 Within structure	ND	ND	ND	ND	ND	ND
P-5-1 East wall	ND	ND	ND	ND	ND	ND
P-6-1 North wall	385*	4152	.260	.520	ND	ND
P-7-1 Base SE corner	ND	ND	ND	ND	ND	ND
P-8-1 Base NE corner	ND	ND	ND	ND	ND	ND

Δ Soil removed from site
 TPH Total Petroleum Hydrocarbons
 mg/kg milligrams per kilogram
 ND Not detected above analytical limits of detection
 * Chromatogram peaks not characteristic of gasoline



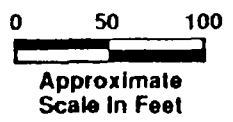
PLOT PLAN

MULTITENANT SUPPLEMENTAL
ENVIRONMENTAL ASSESSMENT
12000 SLAUSON AVENUE
SANTA FE SPRINGS, CALIFORNIA

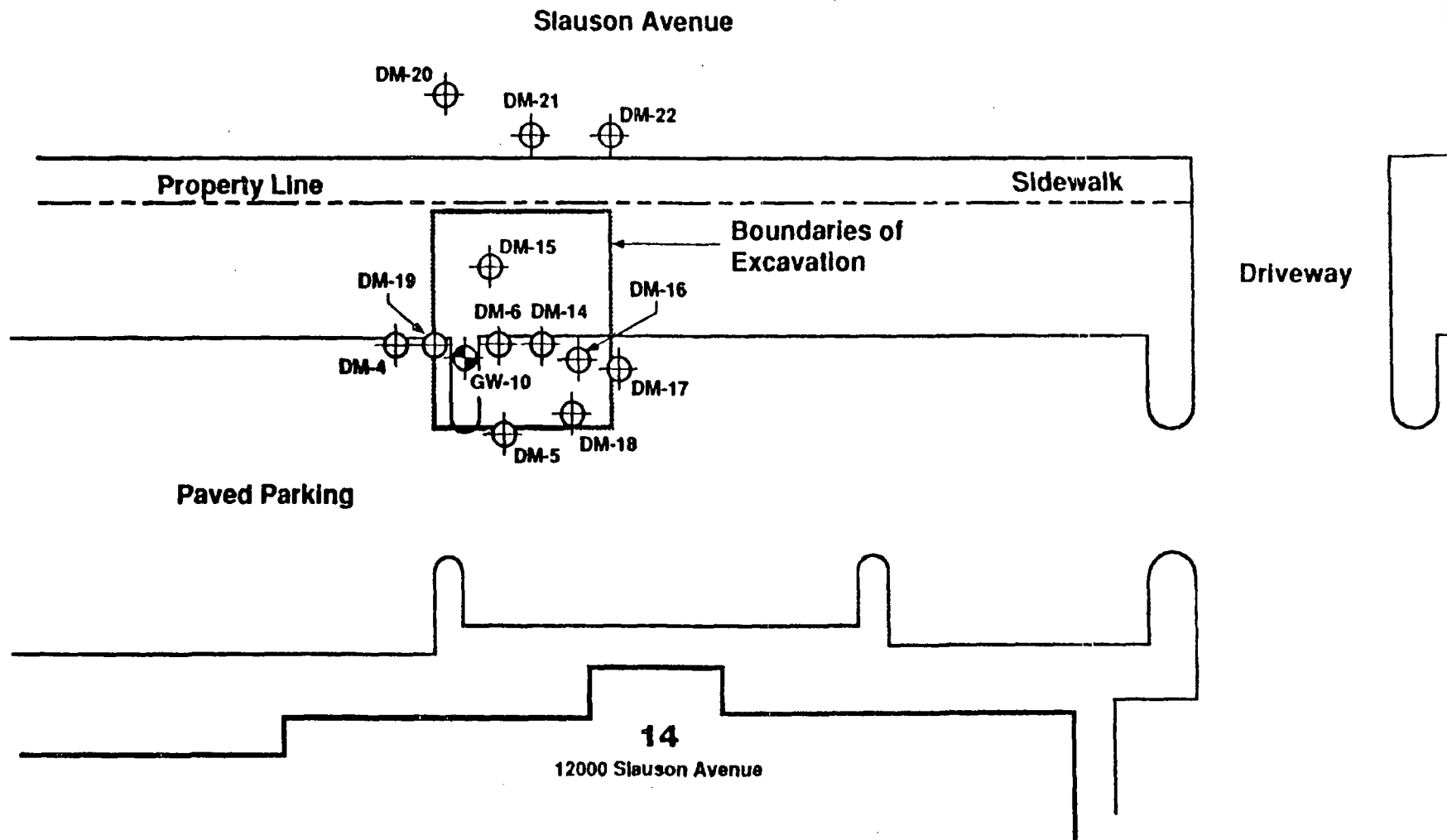
For Catellus Development Corporation

EXPLANATION

GW-10  Monitoring Well
Location and Designation



NAME: S. MORA



EXPLANATION

- GW-10 Former Monitoring Well Location
- DM-19 Boring Location and Designation

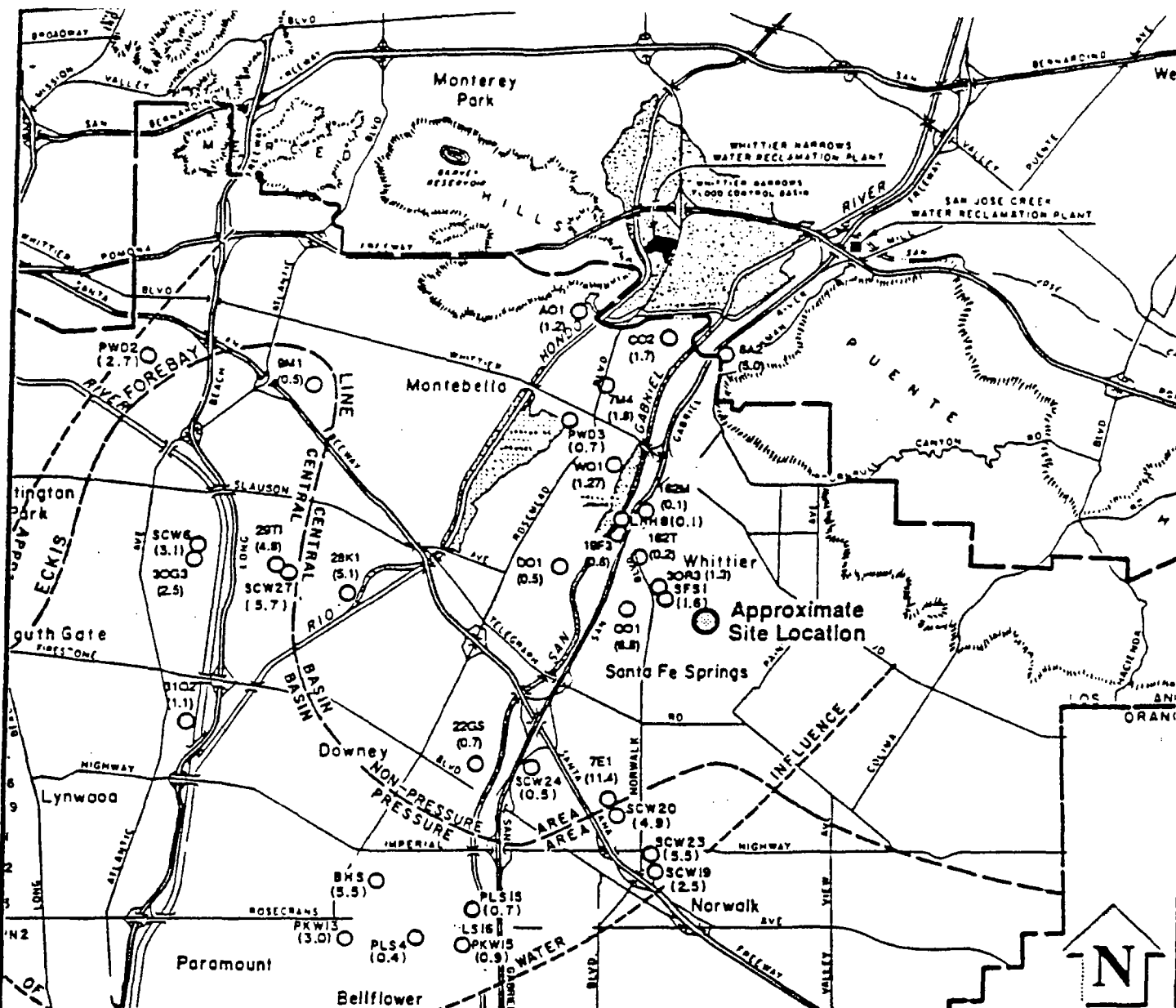
BORING AND EXCAVATION LOCATION PLAN

MULTITENANT SUPPLEMENTAL
ENVIRONMENTAL ASSESSMENT
12000 SLAUSON AVENUE
SANTA FE SPRINGS, CALIFORNIA

For Catellus Development Corporation

0 20 40

Approximate
Scale in Feet



○ Well with Average TCE
Concentration in ug/l

0 1 2 4
Scale in Miles

PUBLIC WATER SUPPLY WELLS THAT HAVE CONTAINED TCE AND/OR PCE CONTAMINATION

Gage, Gaspar, Gardena and Exposition Aquifers

MULTITENANT PROPERTY
12000-12110 SLAUSON AVENUE
Santa Fe Springs, California
For Catellus Development Corporation